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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,704	10/25/2000	Axel Thomsen	50246-171	1502

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EXAMINER

DO, CHAT C

ART UNIT PAPER NUMBER

2124

DATE MAILED: 03/15/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/695,704

Applicant(s)

THOMSEN ET AL.

Examiner

Chat C. Do

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2 is/are allowed.
- 6) ☒ Claim(s) 1 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 3-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This communication is responsive to Amendment B, filed 2/5/2004.
2. Claims 1-8 are pending in this application. Claims 1-2 and 7-8 are independent claims. In Amendment B, claims 1-2 and 7-8 are amended. This action is made final.

#### *Claim Objections*

3. Claim 3 is objected to because of the following informalities: the word "RR" should change to "FIR" in line 3 in claim 3. Appropriate correction is required.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, and 5-8 are rejected under 35 U.S.C. 103(a) as being obvious over Cabler et al. (U.S. 5,656,621) in view of Matlab ("Signal Processing Toolbox for Use with Matlab: Chapter 5 Interactive Tools").

Re claim 1, Cabler et al. disclose in Figure 39 an integrated circuit comprising: an analog to digital converter (900) and an FIR filter (902). Cabler et al. does not disclose an output mechanism selectively providing either only fully settled data from the FIR filter or all data from the FIR filter, including unsettled data. However, Matlab discloses

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in pages 5-24 and 5-33 an output mechanism (signal browser of Figure in page 5-33) selectively providing either a partial/fully settle result by editing the time axis or a full result from the FIR filter by clicking full view button in the tool bar. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add an output mechanism selector in Figure 2 for selecting the desired results to the FIR filter as seen in Matlab's invention into Figure 1 of Cabler et al.'s invention because it would enable the operator to select the portion of the desired signals, to reduce the initial unsteady state, and to increase the immunity from the process variation.

Re claim 5, Cabler et al. further disclose the analog to digital converter is a delta sigma modular (900).

Re claim 6, Cabler et al. further disclose the FIR filter is a decimation filter (902).

Re claim 7, it is a design method of claim 1. Thus, claim 7 is also rejected under the same rationale in the rejection of rejected claim 1.

Re claim 8, it is a fabricated method of claim 1. Thus, claim 8 is also rejected under the same rationale in the rejection of rejected claim 1.

#### ***Allowable Subject Matter***

6. Claim 2 is allowed.

7. Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

8. Applicant's arguments filed 2/5/2004 have been fully considered but they are not persuasive.

a. The applicant argues in pages 6-7 for claim 1 that the cited Matlab reference does not disclose an output mechanism providing either only fully settled data from the FIR filter or all data from the FIR filter, including unsettled data.

The examiner respectfully submits that the cited Matlab reference does not explicitly disclose an output mechanism providing either only fully settled data from the FIR filter or all data from the FIR filter, including unsettled data as cited in claim 1. However, the examiner uses the concept of Matlab reference that capable of viewing/displaying the desired portion of filter data wherein the desired portion might contain all the output filter data or might contain only the settled output filter data by a set of controls (output mechanism). Based on the claim language of claim 1, it does not clearly require any particular structure of an output mechanism to provide either fully settle data or all data from FIR filter. Therefore, it would have been obvious to a person having ordinary skill in the art to use the concept of displaying the output filtered data in Matlab reference into Cabler et al.'s invention in order to select and view the desired portion of output filtered data.

***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (703) 305-5655. The examiner can normally be reached on M => F from 7:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (703) 305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do  
Examiner  
Art Unit 2124

March 4, 2004

*Kakali Chaki*  
**KAKALI CHAKI**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**